two carriers carrying an analyte that is identifiable by the respective code on the carrier, the at least two carriers being arbitrarily distributed on the surface,

(c) an imaging device configured to acquire at least one image of an examination site on the surface, both of the at least two carriers being viewable in the at least one image, and

(d) an image analysis system that uses code information from the image to interpret experiments on the analytes.

27. The device of claim 26 wherein the set includes three or more distinctively coded carriers.

28. The device of claim 26, wherein each of the at least two carriers has a colored code.

29. The device of claim 28, wherein the colored code includes at least two distinct colored optically identifiable marks.

30. The device of claim 26, wherein the carriers are formed from fiber optic components.

31. The device of claim 26, wherein the carriers include nanocrystals.

32. The device of claim 26, wherein the surface is glass.

33. The device of claim 26, wherein the imaging device acquires a digital image of the at least two carriers.

34. The device of claim 26, wherein the imaging device uses a CCD camera device to acquire the at least one digital image.

35. The device of claim 26, wherein the imaging device includes a microscope.

36. The device of claim 26, wherein the imaging device includes confocal optics structure.

37. The device of claim 26, wherein the analyte comprises nucleic acid.

38. The device of claim 26, wherein the analyte is selected from the group consisting of antibodies, enzymes, hormones, receptors, and inhibitors.

39. The device of claim 26, wherein the analyte comprises a molecular beacon compound.

40. The device of claim 26, wherein the code on each of the at least two carriers includes a distinctive spatial arrangement of optically identifiable marks.

41. The device of claim 26, wherein each optically identifiable mark is selected from a group of N possible colors, where N is greater than one.

42. The device of claim 26, wherein each carrier has an analyte area and a code display area.

43. The device of claim 42, wherein the analyte area and the code area substantially coincide.

44. The device of claim 42, wherein the analyte area and code at least partially overlap with each other.